

## ABSTRACT

A method of evaluating mathematical model parameters which describe directions and magnitudes of real and imaginary components of orthogonally related Kramers-Kroenig consistent dielectric functions or complex refractive indices in an optically thick material system which presents with an optical axis oriented either in-plane or out-of-plane, with respect to an alignment surface of the optically thick material system. The method is particularly applicable to investigation of optically thick material systems which are uniaxial or biaxial using IR range wavelengths.